2011 Military Health System Conference

Findings of VA/DoD CPG on CAM Therapies for PTSD

The Quadruple Aim: Working Together, Achieving Success

Miguel Roberts, Ph. D., COL Charles Engel, M.D., Elizabeth Harper Cordova, M.A., Wayne Jonas, M.D.

January 26, 2011

Defense Centers of Excellence
for Psychological Health and Traumatic Brain Injury

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
26 JAN 2011		**00-00-2011 to 00-00-2011**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Findings of VA/DoD CPG on CAM Therapies for PTSD	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury,2345 Crystal Drive,Crystal park 4, Suite 120,Arlington,VA,22202**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES
presented at the 2011 Military Health System Conference, January 24-27, National Harbor, Maryland

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**30**	

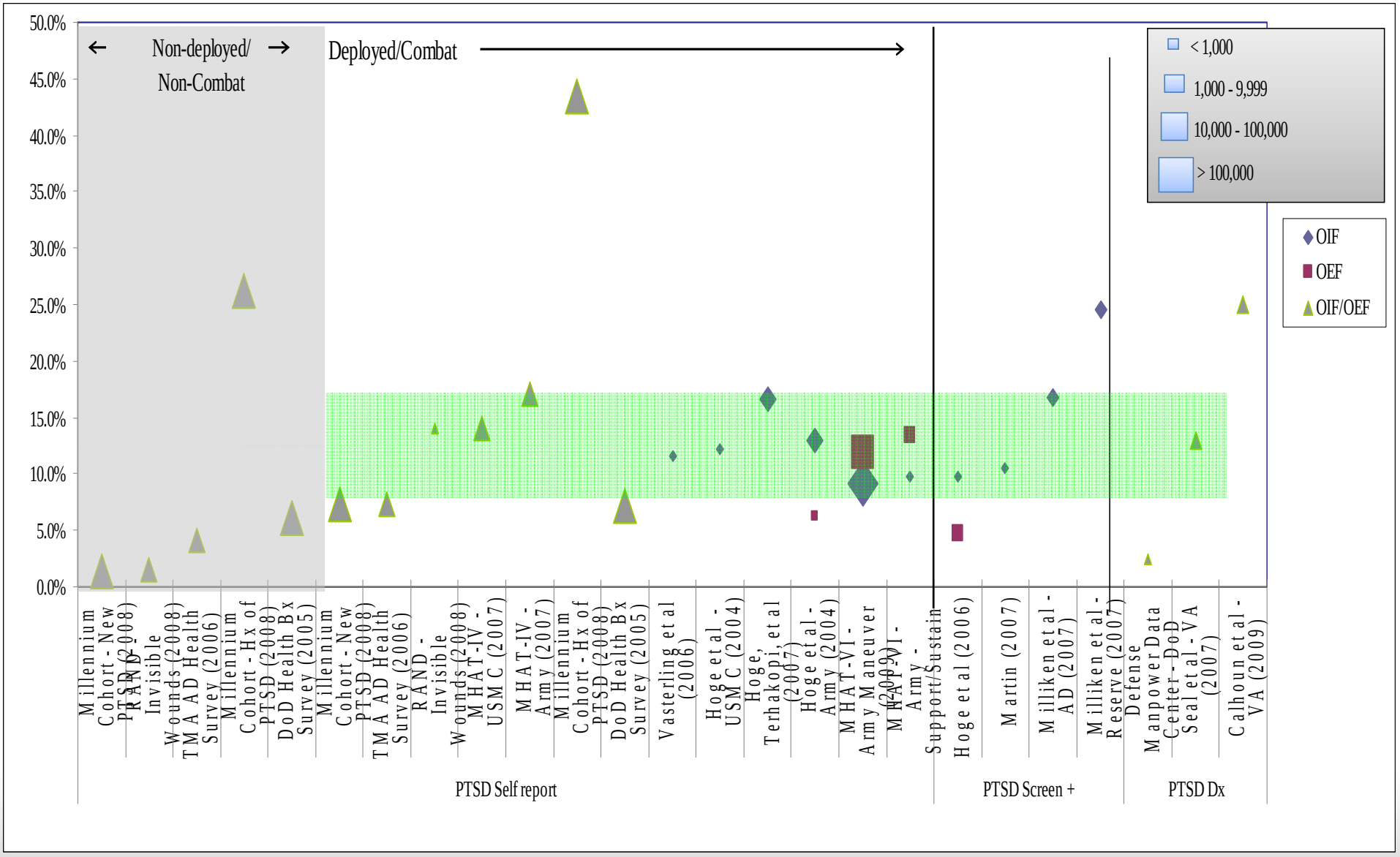
Overview & Agenda

- Objective: Review of CAM as Evidenced-Based Treatment for PTSD
  - Background
  - CPG recommended treatments of PTSD
  - Findings of PTSD VA/DoD CPG Working Group on CAM
  - Discussion / Q&A

Significant Findings

- PTSD Prevalence
  - Clinically diagnosed cases in OEF/OIF = 2.4%
  - Self-reported surveys of PTSD symptoms
    - Range from 1.4% (not exposed to combat) to 15% (populations exposed to sustained ground combat)
  - US general population = 7% to 8%, lifetime prevalence
    - peak prevalence ages 45-59 (9.2%)
  - Higher rates of PTSD are seen in :treatment seeking samples after discharge (e.g., veterans going to MH)
    - Injured during deployment (e.g., mTBI, wounded)
    - “High risk occupations” (e.g., EOD units), greater degree of combat
- Post-deployment problems wider-reaching than formal diagnoses
  - Suicide, adjustment problems, relationship & family problems, divorce, risky behaviors, etc.

PTSD Prevalence Studies



Complementary and Alternative Medicine

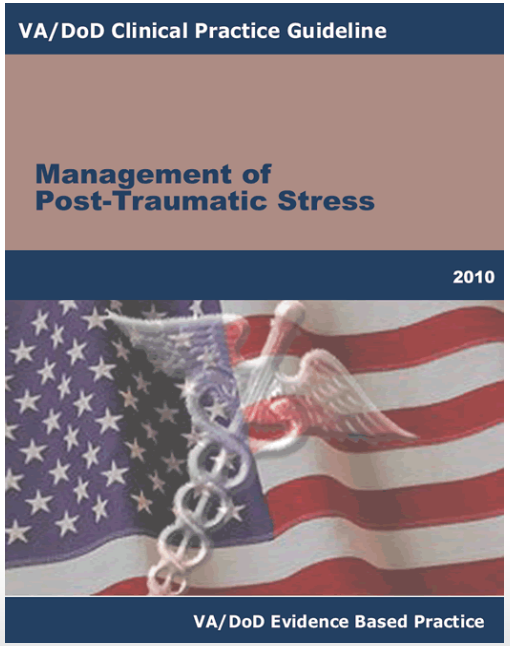
- 2008 CDC report: Increased CAM usage in the US general population
  - Almost 4 out of 10 adults had used CAM therapy in the past 12 months
  - Between 2002 and 2007 increased use was seen among adults for acupuncture, deep breathing exercises, massage therapy, meditation, naturopathy, and yoga

Complementary and Alternative Medicine

- White House commission CAM report (2002)
  - Need for “comprehensive, understandable **summary of current clinical evidence** in CAM for health care practitioners…”
  - Need for “**accurate and easily accessible information on CAM** practices and products”
  - Federally funded health care delivery programs, such as the VA, and **DoD should evaluate the applicability of CAM** wellness and prevention activities to their services.

VA/DoD CPG for the Management of Posttraumatic Stress

- CPG is an update of the 2004 version
- Systematically developed statements to assist practitioner and patient in choosing appropriate health care for specific clinical conditions
  - Actionable recommendations
  - Attempt to incorporate all issues relevant to a clinical question
  - Value judgments--weighting different outcomes, burdens, and costs
  - Guidance where evidence is lacking
  - In VA & DoD, driven by clinical algorithms
- www.healthquality.va.gov
- www.qmo.amedd.army.mil



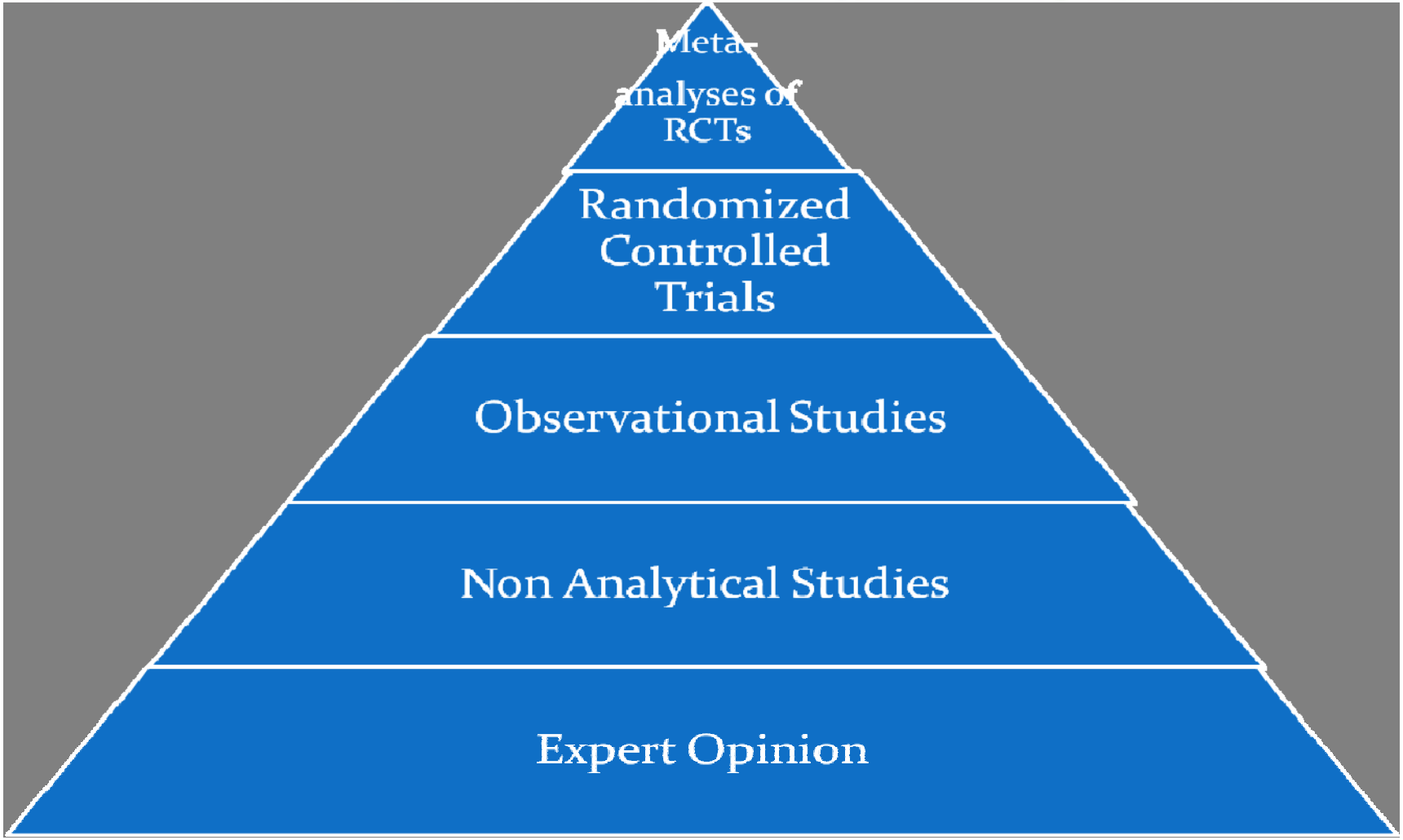
CPG Assumptions

- Guidelines are developed by multidisciplinary groups
- They are based on a systematic review of the scientific evidence
- Recommendations are explicitly linked to the supporting evidence and graded according to the strength of that evidence

CPG Development Process

- One of the key questions
  - What interventions are effective in treatment of PTSD?
    - Resolution of symptoms and functional outcomes
  - Are any Complementary and Alternative Medicine (CAM) approaches more effective than no intervention?
    - Body-mind
    - Meditation (e.g., zen)
    - Herbal, food supplements
    - Energy (e.g., Reiki)
    - Tai Chi
    - Acupuncture

Level of the Evidence



EVIDENCE HIERARCHY

Strength of Recommendation

A Strongly Recommend to offer or provide…

- There is good evidence that the intervention improves important health outcomes – benefits substantially outweigh harm.

B Recommend to offer or provide…

- There is fair evidence that the intervention improves health outcomes – that benefits outweigh harm.

C Consider offering or providing…

- There is poor evidence that the intervention can improve health outcomes – balance of benefit and harm is too close to justify a general recommendation.

I Insufficient Evidence is to recommend for or against providing…

- Evidence that the intervention is effective is lacking or of poor quality, or conflicting – balance of benefit and harm cannot be determined.

Psychotherapy for PTSD

- **Revised CPG: "Strongly recommend… evidence-based trauma-focused psychotherapeutic interventions that include components of exposure and/or cognitive restructuring; or stress inoculation training [A]"**
- **Best evidence exists for:**
  - Prolonged Exposure (possibly also brief exposure)
  - Cognitive Processing Therapy
  - Stress Inoculation Training
  - EMDR

Psychopharmacology for PTSD

- **Strongly recommend selective serotonin reuptake inhibitors (SSRIs), for which fluoxetine, paroxetine or sertraline have the strongest support, or serotonin norepinephrine reuptake inhibitors (SNRIs), for which venlafaxine has the strongest support, for the treatment of PTSD. [A]**
- **Best evidence exists for:**
  - SSRIs (Fluoxetine, Paroxetine, or Sertraline) and SNRIs (Venlafaxine)

Complementary and Alternative Medicine

- **Modalities reviewed in the PTSD CPG include:**
  - Body-Mind Approaches (e.g., Yoga, & Tai Chi)
    - RCTs show benefits in other areas (e.g. sleep, stress, anxiety, etc.), BUT no RCTs or comparison trials in PTSD
  - Meditation Training (e.g., zen)
    - Improves sleep, anxiety, and pain, BUT no RCTs in PTSD
  - Exercise (mostly aerobic exercise)
    - Rarely conducted in isolation from other interventions
  - Energy Medicine (e.g., Qi Gung, *Reiki, Johrei*)
    - Improvement in comorbid conditions, BUT not RCTs in PTSD
  - Acupuncture

Complementary and Alternative Medicine

- **VA/DoD PTSD CPG Recommendations on CAM:**
  - There is insufficient evidence to recommend as first line treatments for PTSD [I]
  - CAM approaches that facilitate a relaxation response (e.g. mindfulness, yoga, massage) may be considered for adjunctive treatment of hyperarousal symptoms, although there is no evidence that these are more effective than standard stress inoculation techniques [I]
  - May be considered as adjunctive approaches to address some co-morbid conditions (e.g. acupuncture for pain) [C]

Complementary and Alternative Medicine

VA/DoD PTSD CPG Findings on CAM:

- May facilitate engagement in care
- May be considered for some patients who refuse evidence-based treatments
- Providers should discuss the evidence for effectiveness and risk-benefits of different options, and ensure that the patient is appropriately informed

Acupuncture for PTSD and Related Conditions

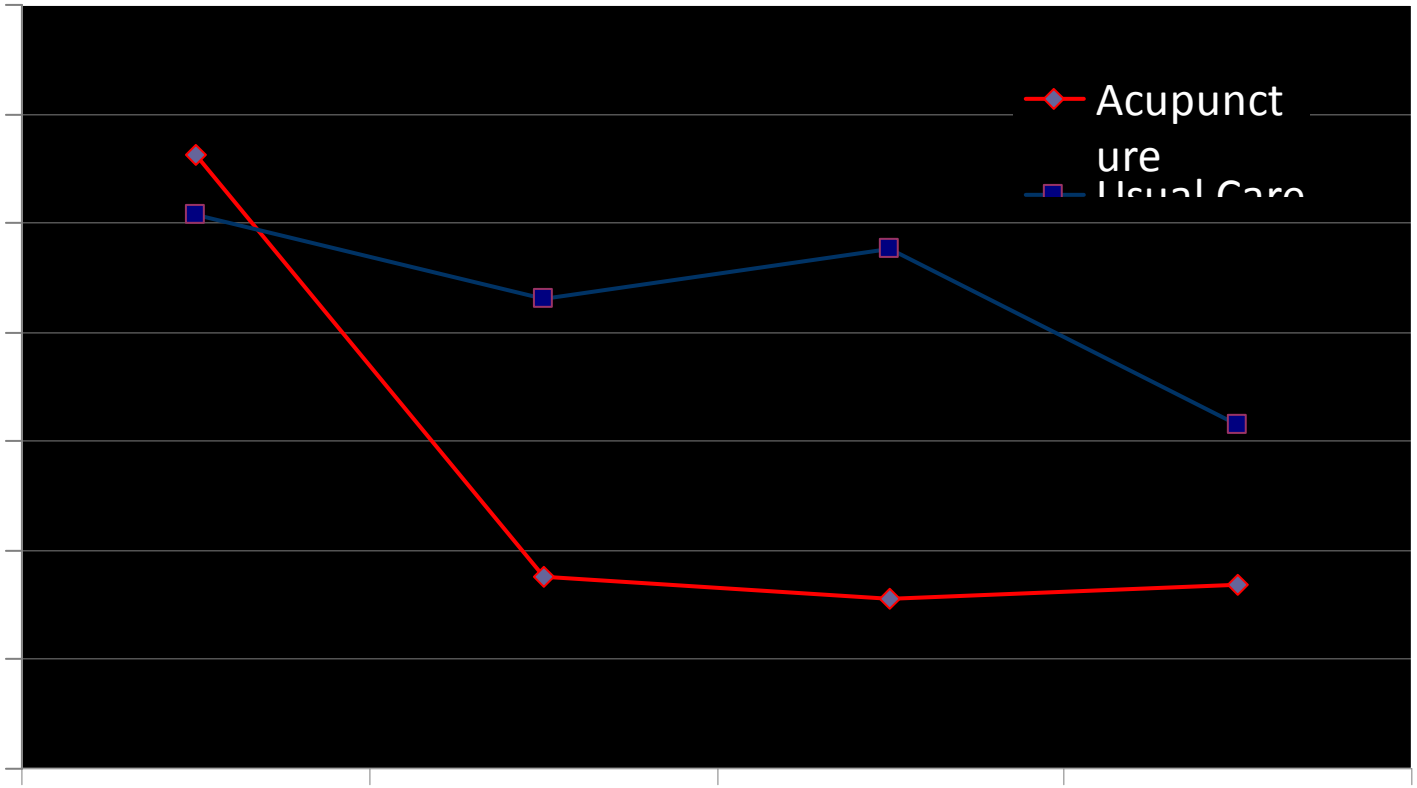
- PTSD:
  - Hollifield et al. (2007).
  - Engel et al. (manuscript in prep).
- Anxiety, Depression, & Insomnia:
  - Zhang et al. (2010).
  - Leo & Ligot (2007).
  - Blitzer et al. (2004).
  - Spence et al. (2004).
  - Eich et al. (2000).
- Pain:
  - Weidenhammer et al. (2007).
  - Manheimer et al. (2005).
  - Birch et al. (2004).
  - Eshkevari (2003).

Acupuncture for PTSD: A Randomized Trial in a Military Population

Engel CC, Harper Cordova E, Benedek D, Jonas W, Ursano R.

- Two group, parallel arm, RCT in Active Duty service members at WRAMC
  - Group 1: Acupuncture treatment (ACU)
  - Group 2: Usual Care (UC)
- Two 90-min sessions per week for four weeks
- Acupuncturists blinded to study condition
- Follow-up for both groups at baseline, 4-wks, 8-wks, & 12-wks post-randomization
- Primary Outcome Measure: Posttraumatic Stress Disorder Checklist (PCL)

PTSD Symptoms (PCL)



Acupuncture: Conclusions

Compared to usual PTSD care, a four week course of twice weekly TCM acupuncture resulted in significantly greater improvements in…

- PTSD symptoms

pre-post ES 1.4-1.6 versus usual care ES 0.12-0.74

- Depression and pain symptoms
- Mental but not physical health functioning

- **VA/DoD PTSD CPG Recommendations:**
  - Acupuncture may be considered as treatment for patients with PTSD. [B]

Overall Conclusions and Take-Home Message

- Promoting evidence-based treatment ultimately enhances and optimizes treatment outcomes, including knowledge of state of the evidence for CAM modalities for PTSD
- Tools for providers and patients are needed—accurate and unbiased information on CAM is needed
- Use the current gaps in knowledge as a map for future research/improvements

Thank you!

Back-up slides

PTSD Diagnosis

- Exposure to a severely traumatic event involving actual or threatened death, serious injury, or threat to physical integrity of self or others
- Accompanied by fear, helplessness, or horror
- Must have:
  - Reexperiencing symptoms
  - Avoidance symptoms
  - Hyperarousal symptoms

PTSD Diagnosis

- Symptoms must persist for at least one month and cause significant distress or impairment

Guideline Development Process:
Evidence Tables and Evidence Rating

Developed by *SUD Working Group* using USPSTF 2001 ratings process

High	I	**RCT**
High	II-1	**Control Trial**
Moderate	II-2	**Case-Control Study**
Moderate	II-3	**Uncontrolled Experiment**
Low	III	**Opinion, Case Reports**

Quality of Evidence

+

Good	***High QE*** → **good health outcome**
Fair	***High QE*** → **intermediate outcome** *or* ***Moderate QE*** → **good health outcome**
Poor	***Low QE*** *or* **No linkage to health outcome**

Overall Quality

+

Substantial	**> Small Impact**
Moderate	**Small impact**
Small	**Negligible impact**
Zero/Negative	**Negative / No Impact**

Net Effect of Intervention

Final recommendation grade

Guideline Development Process:
Strength of Recommendation

Developed by *SUD Working Group* using USPSTF 2001 ratings process

	The net benefit of the intervention			
Quality of Evidence	**Substantial**	**Moderate**	**Small**	**Zero or Negative**
Good	A	B	C	D
Fair	B	B	C	D
Poor	I	I	I	I

Key

A *Strong Recommendation* that clinicians provide intervention
B *Recommendation* that clinicians provide intervention
C *No Recommendation* for or against intervention
D *Recommendation Against* providing intervention
I *Insufficient Evidence* for recommendation

PTSD Treatment Psychotherapy Balance of Benefit and Harm

SR	Significant Benefit	Some Benefit	Unknown	NO Benefit
A	Trauma-focused psychotherapy that includes components of exposure and/or cognitive restructuring; or stress inoculation training			
B		•Imagery Rehearsal Therapy		
C		•Patient Education •Psychodynamic Therapy •Hypnosis •Relaxation Techniques •Group Therapy		
I		•Family Therapy	•Web-based CBT •Dialectical Behavioral	

PTSD Treatment: Pharmacotherapy

SR	Significant Benefit	Some Benefit	UNKNOWN	No Benefit
A	SSRIs SNRIs			
B		Atypical AP (as adjunct) TCAs MAOIs (phenelzine) Mirtazapine Nefazodone [Caution] Prazosin (sleep/nightmares)		
C			Prazosin (for CORE PTSD)	
D				Benzodiazepines [Harm] Guanfacine Valproate Tiagabine Topiramate
I			Antipsychotics [Harm] Buspirone	

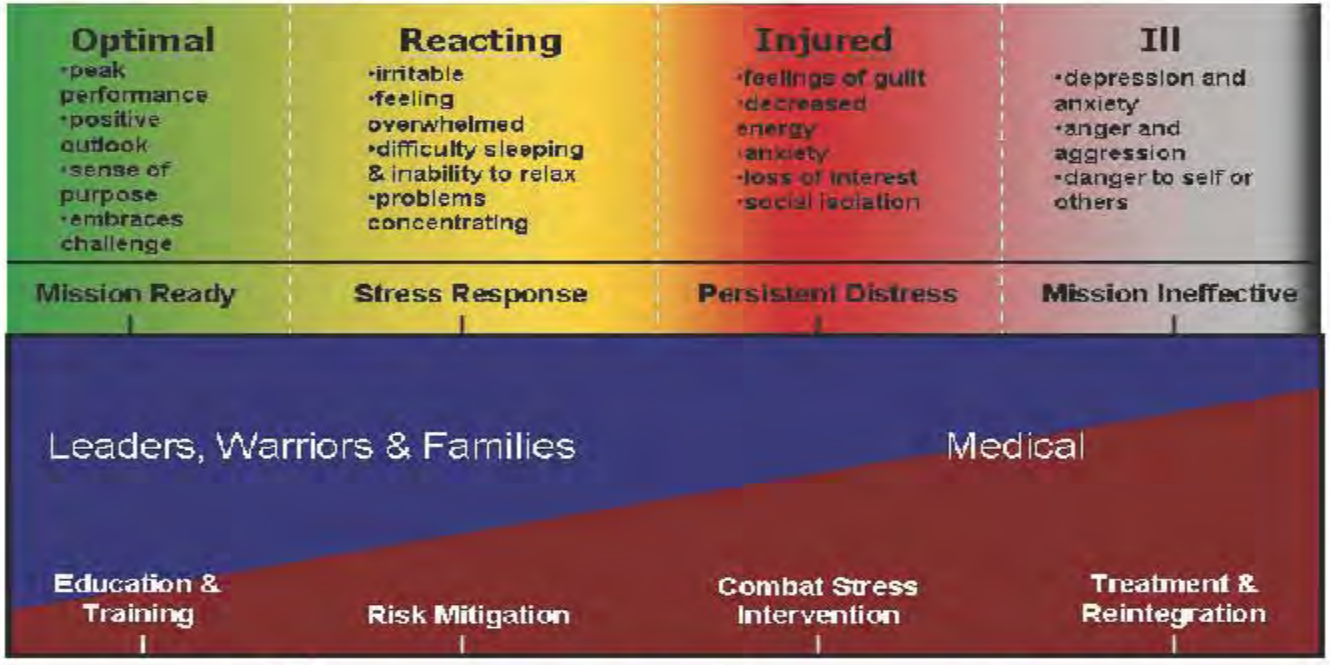
Resilience

Building a Culture of Resilience

DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

EARLY INTERVENTION

RESILIENCE



REINTEGRATION

RECOVERY